

## ABSTRACT

An alignment method capable of performing alignment  
5 without providing alignment marks on a mask and  
preventing a decline of exposure throughput and latent  
image contrast, an alignment substrate and the production  
method, an exposure method, an exposure apparatus and a  
production method of a mask are provided. An alignment  
10 method including a step of transmitting a light or a  
charged particle beam from a first surface side of a thin  
film to a second surface side, reflecting the light or  
charged particle beam on a plurality of alignment marks  
arranged on the second surface side of the thin film but  
15 outside the thin film, detecting the reflected light or  
charged particle beam on the first surface side, and  
detecting positions of the alignment marks, and a step of  
obtaining position coordinates on the thin film; an  
alignment substrate used for the alignment method and a  
20 production method thereof, an exposure method for  
performing the alignment, an exposure apparatus and a  
production method of a mask.